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California Air Resources Board 1001 I Street P.O. Box 2815 Sacramento, California 95812

Re: Reference: CARB's Workshop Related to The Clean Power Plan and Potential Amendments to the Cap-and-Trade Regulation Convened December 14, 2015

Thank you for the opportunity to comment on California's plan for compliance with the U.S. Environmental Protection Agency's (U.S. EPA's) Clean Power Plan, and the scope for potential amendments to the Cap-and-Trade Regulation.

Covanta is a national leader in developing, owning and operating facilities that convert municipal solid waste ("MSW") into renewable energy (energy-from-waste or "EfW" facilities). These facilities are internationally recognized as a source of greenhouse gas (GHG) mitigation, including by the U.S. EPA,¹ U.S. EPA scientists,² the Intergovernmental Panel on Climate Change ("IPCC"),³ the World Economic Forum,⁴ the European Union,⁵,6 CalRecycle,⁵ and the Center for American Progress.8 This GHG mitigation is achieved by displacing grid connected fossil-fuel fired electricity, recovering metals from the waste stream for recycling, and most importantly, by avoiding landfill emissions of methane, a key Short Lived Climate Pollutant.

Covanta supports using a mass-based, state measured program in California. We also suggest that as the California Air Resources Board (CARB) develops the state's plan that the climate benefits of existing and baseload technologies like EfW and biomass be recognized. Additionally, as the US EPA has recognized that EfW is not a regulated source under the Clean Power Plan, the ARB should model its Cap and Trade Program recognizing these similar benefits.

Many other jurisdictions around the world have concluded that sustainable waste management - incorporating recycling, composting and for what remains, EfW - can play an important role in reducing greenhouse gas emissions. We appreciate the opportunity to comment on the CARB's Clean Power Plan Rules and Electricity Topics in the Cap-and-Trade Regulation.

Respectfully Submitted,

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¹ U.S. EPA Office of Solid Waste, Air Emissions from MSW Combustion Facilities, http://www.epa.gov/osw/nonhaz/municipal/wte/airem.htm#7

² Kaplan, P.O, J. DeCarolis, and S. Thorneloe, 2009, Is it better to burn or bury waste for clean electricity generation? *Environ. Sci. Technology* 43 (6) pp1711-1717. Available at: http://pubs.acs.org/doi/abs/10.1021/es802395e

³ EfW identified as a "key mitigation measure" in IPCC, "Climate Change 2007: Synthesis Report. Contribution of Work Groups I, II, and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change" [Core Writing Team, Pachauri, R.K and Reisinger, A. (eds.)]. IPCC, Geneva, Switzerland, 104 pp. Available at: http://www.ipcc.ch/publications and data/publications ipcc fourth assessment report synthesis report.htm

⁴ EfW identified as a key technology for a future low carbon energy system in World Economic Forum. *Green Investing: Towards a Clean Energy Infrastructure.* January 2009. Available at: http://www.weforum.org/pdf/climate/Green.pdf

⁵ EU policies promoting EfW as part of an integrated waste management strategy have been an overwhelming success, reducing GHG emissions over 72 million metric tonnes per year, see European Environment Agency, *Greenhouse gas emission trends and projections in Europe 2009: Tracking progress towards Kyoto targets*http://www.eea.europa.eu/publications/eea report 2009 9

⁶ European Environmental Agency (2008) Better management of municipal waste will reduce greenhouse gas emissions. Available at: http://www.eea.europa.eu/publications/briefing 2008 1/EN Briefing 01-2008.pdf

⁷ CalRecycle. 2012. CalRecycle Review of Waste-to-Energy and Avoided Landfill Methane Emissions. Available at: http://www.calrecycle.ca.gov/Actions/PublicNoticeDetail.aspx?id=735&aiid=689

⁸ Center for American Progress (2013) Energy from Waste Can Help Curb Greenhouse Gas Emissions http://www.americanprogress.org/wp-content/uploads/2013/04/EnergyFromWaste-PDF1.pdf.